2022 Spring Student Symposium

[A] Art Exhibit [G] General Event [O] Oral Presentation [P] Poster Presentation [R] Prerecorded Presentation

[Z] Zoom Presentation

APRIL 22 • FRIDAY

PINNED 9:00am – 9:15am	G	**Welcome by Laurie Patton, President of Middlebury College**	MBH Great Hall
9:15am – 9:30am	O	**Heredity Threat of Feebleminded Women: American Eugenic Thought in Missouri Asylums at the Turn of the Twentieth Century** *Presenters: Mary Moore '22.5* *Sponsors: Amy Morsman*	MBH 219
9:15am – 9:30am	O	**Improving Weather Forecasts with Machine Learning** *Presenters: Katelyn Mei '22, Acadia Hegedus '22, Tom Gause '22* *Sponsors: Alex Lyford*	MBH 403
9:15am – 9:30am	O	**Modeling the Effect of Sleep Deprivation on Pain Sensitivity** *Presenters: Carolyn (Carrie) Vanty '23.5* *Sponsors: Jennifer Crodelle*	MBH 216
9:15am – 9:30am	O	**Opportunistic and Occupational Hunters: Understanding Dynamics of Sea Turtle Harvest in Southwest Madagascar** *Presenters: Gabriel Lefkowitz '22* *Sponsors: Mez Baker-Medard*	MBH 104
9:15am – 9:30am	O	**Petrology, Age, and Geochemistry of the Yarmouth Island Formation, Casco Bay, Maine** *Presenters: Sophia Johnson '22* *Sponsors: David West*	MBH 311
9:15am – 9:30am	O	**The Impact of Black Lives Matter Protests on Election and Policing** *Presenters: Patrick Stevenson '22.5* *Sponsors: Erick Gong*	MBH 220
9:15am – 9:30am	O	**The Impact of Second Language Background on The Sensitivity of Emotional Prosody Identification** *Presenters: Yuka Tatsumi '22* *Sponsors: Brandon Baird*	MBH 303
9:15am – 10:30am	O	**The Living Building Challenge - Envisioning Middlebury's Future** *Presenters: Sanjana Roy '22, Clara Wolcott '22, Lauren Gemery '23, Grace Sokolow '24, Isabelle Gay '23.5* *Sponsors: Shelly Pottorf*	MBH 317
9:35am – 9:50am	O	**Democracy: A Cinemetic Poem** *Presenters: Daphne West '23.5* *Sponsors: Spring Ulmer*	MBH 104
9:35am – 9:50am	O	**Determining the Origin of Felsic Intrusions in the Champlain Valley** *Presenters: Amanda Marks '22* *Sponsors: Will Amidon*	MBH 311

9:35am – 9:50am	O	**Learning Glottophobia : Examining Accent Preferences and Prejudices of Middlebury French Students** *Presenters: Jennie Bob Bizal-Clark '22* *Sponsors: Gyula Zsombok*	MBH 303
9:35am – 9:50am	O	**Mutual Aid & Health Outcomes in Haiti** *Presenters: Cecilia Needham '22.5* *Sponsors: Sarah Stroup*	MBH 216
9:35am – 9:50am	O	**School Board Chaos: Impact of the Anti-Critical Race Theory Movement** *Presenters: Celia Gottlieb '22* *Sponsors: Bert Johnson*	MBH 220
9:35am – 9:50am	O	**The Effect of Increased Access to IVF on Women's Career** *Presenters: Lingxi Chen '22.5* *Sponsors: Caitlin Myers*	MBH 219
9:35am – 9:50am	O	**Using Machine Learning to Identify Supermassive Black Hole Powered Quasars** *Presenters: Shirley Mao '22.5* *Sponsors: Eilat Glikman*	MBH 403
9:55am – 10:10am	O	**Exploration of Nutrient Limitation in the Little Colorado River, Grand Canyon, AZ** *Presenters: Phoebe Brown '22.5* *Sponsors: Eric Moody*	MBH 104
9:55am – 10:10am	O	**Han Song's "Ancient Desert Ship" and Other Stories in Translation** *Presenters: Jackson Evans '22* *Sponsors: Thomas Moran*	MBH 303
9:55am – 10:10am	O	**NPSV2: A Machine Learning Approach to Structural Variant Genotyping in Whole Genome Sequencing Data** *Presenters: Eliza Wieman '23, Daniel Brey '22* *Sponsors: Michael Linderman*	MBH 403
9:55am – 10:10am	O	**Reducing the Burden: Does Access to Mail-Order Abortion Pills Reduce Trips to Clinics?** *Presenters: Frieda Violet Thaveethu '22* *Sponsors: Caitlin Myers*	MBH 219
9:55am – 10:10am	O	**Shunning the Presence of People: Chinese Landscapes and the Artwork of Bambi** *Presenters: Annaliese Terlesky '23.5* *Sponsors: Cynthia Packert*	MBH 311
9:55am – 10:10am	O	**Success in New Landscapes of Social Movements: Building Resiliency & Re-envisioning Success Through Culture** *Presenters: Arlo Fleischer '21.5* *Sponsors: Linus Owens*	MBH 220
9:55am – 10:10am	O	**Talking About Pandemic Losses** *Presenters: Michele Young '22* *Sponsors: Suzanne Gurland*	MBH 216
10:00am – 4:00pm	A	**Art Exhibits**	Johnson Memorial Building
10:15am – 10:30am	O	**Hormone Projects: Corporeal Correction, Conflict, and Confusion in the Age of Contraceptives** *Presenters: Anna Wood '22* *Sponsors: Kristin Bright*	MBH 219
10:15am – 10:30am	O	**Issues in Translation: Arabic Short Literature** *Presenters: Aidan Wertz '22* *Sponsors: Usama Soltan*	MBH 303

10:15am – 10:30am	O	**Machine Learning to Reverse-Solve Schrodinger's Equation** *Presenters: Ellie Suit '24* *Sponsors: Chris Herdman*	MBH 403
10:15am – 10:30am	O	**Pain Processing at the Peripheral Sensory Level in Drosophila Melanogaster** *Presenters: Edith Lopez '22* *Sponsors: Amanda Crocker*	MBH 216
10:15am – 10:30am	O	**Pronunciation and Appropriation: How Single-Word Choices Reveal the Intersections of Relationships, Identity, Context and Language** *Presenters: Riley Board '22* *Sponsors: Shawna Shapiro*	MBH 311
10:15am – 10:30am	O	**The Power of Mapping: Transforming Data Points Into a Conservation Tool** *Presenters: Kathryn Talano '22* *Sponsors: Alex Lyford*	MBH 104
10:15am – 10:30am	O	**“A Braid is Stronger”: Weaving Decolonial Research Relationships** *Presenters: Jaden Hill '22* *Sponsors: Kirsten Coe*	MBH 220
10:30am – 11:15am	P	**01. Memor-eyes; Bilateral Saccadic Eye Movements and Episodic Memory Retrieval** *Presenters: Olivia Haouchine '22* *Sponsors: Jason Arndt*	MBH Great Hall
10:30am – 11:15am	P	**02. Comparison of Phosphorus Determination in Freshwater Invertebrates by Spectrophotometry and Inductively-Coupled Plasma Mass Spectrometry** *Presenters: Julia Keon '23, Alexander Kessler '22.5* *Sponsors: Molly Costanza-Robinson*	MBH Great Hall
10:30am – 11:15am	P	**03. Identification of SloR Binding Sites Throughout the Streptococcus Mutans UA159 Genome** *Presenters: Emily Bulczynski '22* *Sponsors: Grace Spatafora*	MBH Great Hall
10:30am – 11:15am	P	**04. The Relationship Between Attendance in a Virtual Exercise Class and Quality of Life for People with Parkinson Disease** *Presenters: Nate Stewart '22* *Sponsors: Clinton Cave*	MBH Great Hall
10:30am – 11:15am	P	**05. Gnawing Away at the Family Tree: Adironack Beaver Lineage** *Presenters: Audrey Hsi '22* *Sponsors: Alexis Mychajliw*	MBH Great Hall
10:30am – 11:15am	P	**06. Foreign Aid and Corruption: The Case of China’s Overseas Lending** *Presenters: Claire Moy '22* *Sponsors: Will Pyle*	MBH Great Hall
10:30am – 11:15am	P	**07. Constructing a Laser-Scanning Confocal Microscope Using Curved Mirrors** *Presenters: Thomas Zodda '22.5* *Sponsors: Michael Durst*	MBH Great Hall
10:30am – 11:15am	P	**08. Big Fish: A Spectacle on a Budget** *Presenters: Nino Tomas '22, Gayathri Mantha '25* *Sponsors: Mark Evancho*	MBH Great Hall
10:30am – 11:15am	P	**09. The Effect of Cell Wall Elasticity on the Desiccation Tolerance of the Common Biocrust Moss Syntrichia caninervis** *Presenters: Nuki Neumeister '22.5* *Sponsors: Kirsten Coe*	MBH Great Hall

10:30am – 11:15am	P	**10. Development of a Novel Method to Probe for a Deacetylase in Borrelia burgdorferi, the Causative Agent of Lyme Disease** *Presenters: Ming Harris-Weidner '22* *Sponsors: Bob Cluss*	MBH Great Hall
10:30am – 11:15am	P	**11. Does Using Moral Foundation Language for Christians Increase Environmental Engagement** *Presenters: Maya Saterson '22* *Sponsors: Michelle McCauley*	MBH Great Hall
10:30am – 11:15am	P	**12. The Diurnal Fluctuations and Effects of UV on Escherichia coli in Jackson, WY Recreational Streams** *Presenters: Emma Román '22* *Sponsors: Eric Moody*	MBH Great Hall
10:30am – 11:15am	P	**13. Measuring the Superconducting Transition of a High-Temperature Superconductor** *Presenters: Willson Moore '22.5* *Sponsors: Susan Watson*	MBH Great Hall
10:30am – 11:15am	P	**14. Mechanism of Testosterone: The Effects of Intracerebral Testosterone on Spatial Memory in Adult Male Rats** *Presenters: Hieu Nguyen '23* *Sponsors: Mark Spritzer*	MBH Great Hall
10:30am – 11:15am	P	**15. A Protein Proof-of-Concept Model of a Photoredox Crosslinking Approach to Drug Target Identification** *Presenters: Alden Harring '22* *Sponsors: Lindsay Repka*	MBH Great Hall
10:30am – 11:15am	P	**16. Remote Renderings for Restoration: Representations of Wetlands in the Southern Marshes of Iraq** *Presenters: Brooke Laird '22* *Sponsors: Joe Holler*	MBH Great Hall
10:30am – 11:15am	P	**17. Caught in the Cross Hairs: Novel Hybrid Sensilla in Ants Detected by SEM Imaging** *Presenters: Hannah Gellert '22* *Sponsors: Greg Pask*	MBH Great Hall
10:30am – 11:15am	P	**18. Behavioral Responses in Drosophila melanogaster Following Traumatic Brain Injury** *Presenters: Laurie Chen '22, Sebin Park '22* *Sponsors: Amanda Crocker*	MBH Great Hall
10:30am – 11:15am	P	**19. Synthesis of Ruthenium-Complexed Fluorene Polymer as Potential Molecular Wire** *Presenters: Huiming Liang '22* *Sponsors: Jeff Byers*	MBH Great Hall
10:30am – 11:15am	P	**20. Understanding Paleoclimate through Packrat Middens** *Presenters: Elizabeth Austin '24* *Sponsors: Alexis Mychajliw*	MBH Great Hall
10:30am – 11:15am	P	**21. PFAS Exposure from Ski Wax Application and Implications for General Exposure Pathways** *Presenters: Nicola Hartmann '23.5, Emilia Andersen '22* *Sponsors: Kathryn Crawford*	MBH Great Hall
10:30am – 11:15am	P	**22. Investigation of Gasdermins as "Executioner" Molecules in Pyroptosis** *Presenters: Miriam Weathers '22* *Sponsors: Cole Dovey*	MBH Great Hall

10:30am – 11:15am	P	**44. 0 Gorham Lane Research and Analysis** *Presenters: Sarah Mines '24.5, Sarah Rifkin '24, Tyler Hadar '25, Christopher Fridlington '24, Beckett Pintair '24.5* *Sponsors: John McLeod*	MBH Great Hall
10:30am – 5:00pm	R	**Ableism and Audism in Cochlear Implant Marketing** *Presenters: Phaedra Robinson '22* *Sponsors: Susan Burch*	Online
10:30am – 5:00pm	R	**Undocumented Immigration and California's Agricultural Economy** *Presenters: Sylvie Shure '24.5* *Sponsors: Phani Wunnava*	Online
10:30am – 5:00pm	R	**Word and World: Multifaceted Consciousness and Preverbal Movements in Gao Xingjian's Soul Mountain and Nathalie Sarraute's Childhood** *Presenters: Qing Zhao '21.5* *Sponsors: Thomas Moran*	Online
11:15am – 11:30am	O	**At the Intersection: The Housing Crisis and Opioid Crisis in Vermont** *Presenters: Grace Getman '22* *Sponsors: Pam Berenbaum*	MBH 216
11:15am – 11:30am	O	**Attitudes Towards Expanding the State Sector After Experiencing a Recent Recession** *Presenters: Justin Cooper '22* *Sponsors: Will Pyle*	MBH 303
11:15am – 11:30am	O	**Bad Romance: The Pyroptosis Executioner GSDME Finds a New Binding Partner** *Presenters: Margaret Haberle '22* *Sponsors: Cole Dovey*	MBH 219
11:15am – 11:30am	O	**Decoding Olfactory Receptors in Harpegnathos Saltator** *Presenters: Benjamin Morris '22, Aiden Masters '22* *Sponsors: Greg Pask*	MBH 311
11:15am – 11:30am	O	**Political (Non) Apologies in Argentina and Russia** *Presenters: Isabel Larson '22* *Sponsors: Sarah Stroup*	MBH 403
11:15am – 11:30am	O	**Stillness in Action: Exploring the Power of the Radical Resting Body** *Presenters: Maia Sauer '22* *Sponsors: Lida Winfield*	MBH 220
11:15am – 11:30am	O	**Taking 3D Pictures with a Pulsed Laser** *Presenters: Sam Yurak '22* *Sponsors: Michael Durst*	MBH 104
11:15am – 12:30pm	O	**Education Studies Senior Seminar Research Projects** *Presenters: Leah Smith '22, Michelle Marquez '22, Katherine (Katie) Beadle '22.5, Dana Glackin '22, Bryn Hester '22, Lori Ngo '22, Emma Ramirez-Richer '22* *Sponsors: Tracy Weston*	MBH 317
11:35am – 11:50am	O	**An Innovative, Highly Sensitive and Transferrable Tool for Neurocognitive Monitoring in Congenital Central Hypoventilation Syndrome (CCHS): the NIH Toolbox®** *Presenters: Remi Welbel '22.5* *Sponsors: Clinton Cave*	MBH 220
11:35am – 11:50am	O	**Assessing Needs of Low-Income Families in Vermont** *Presenters: Grace Boyce '22.5, Patricia Alonso Rivera '22, Tai Nguyen '22* *Sponsors: Alex Lyford*	MBH 216

11:35am – 11:50am	O	**Double or Nothing: The Social Impact of Tribal Casinos on Native American Population** *Presenters: Cynthia Chen '22* *Sponsors: Caitlin Myers*	MBH 303
11:35am – 11:50am	O	**Jungle Primaries: Losing The Third Party In The Jungle** *Presenters: Michael Matheson '25* *Sponsors: Ajay Verghese*	MBH 403
11:35am – 11:50am	O	**Mapping the Spread of Queer Inclusive Policies in Tokyo Wards** *Presenters: Akari Tsurumaki '23* *Sponsors: Linda White*	MBH 311
11:35am – 11:50am	O	**Synchronization of Electrically Coupled Neurons** *Presenters: Bryan Currie '22* *Sponsors: Jennifer Crodelle*	MBH 219
11:35am – 11:50am	O	**The Middlebury Campus: A Documentary** *Presenters: Riley Board '22, Cooper Kelley '22* *Sponsors: Rebecca Tiger*	MBH 104
11:55am – 12:10pm	O	**Analysis of Latency Reversal and Anti-HIV Activity in South African Daphnane Diterpenes** *Presenters: Nathan Levitties '23* *Sponsors: Bob Cluss*	MBH 220
11:55am – 12:10pm	O	**Analyzing Lead in Vermont Schools** *Presenters: Nicholas Brown '22, Michele Young '22, Evan Kelly '23, Evelyn Lane '23* *Sponsors: Molly Costanza-Robinson*	MBH 216
11:55am – 12:10pm	O	**Building MIMDB to** *Presenters: Jiaqi Li '22* *Sponsors: Christopher Andrews*	MBH 104
11:55am – 12:10pm	O	**Exploring Atypical Chain Formations Constructed by the Ubiquitin ligase Rsp5** *Presenters: Dani Xu '22* *Sponsors: Michael French*	MBH 219
11:55am – 12:10pm	O	**Exploring Community Building in an Immigrant Church** *Presenters: Lauren Eskra '22* *Sponsors: Justin Doran*	MBH 311
11:55am – 12:10pm	O	**Nuisance Ordinances, Evictions, and Homelessness** *Presenters: Ethan Berner '22* *Sponsors: Erick Gong*	MBH 403
11:55am – 12:10pm	O	**The Toll of a Pandemic: Interpellation, Biopolitics, and the Lived Experience of Moral Distress among Frontline Healthcare Workers during COVID-19** *Presenters: Kathryn van der Merwe '22* *Sponsors: Kristin Bright*	MBH 303
12:15pm – 12:30pm	O	**Antithrombotic Use And Bleeding Risk In Retrobulbar Anesthesia** *Presenters: John Eschert '23.5* *Sponsors: Jeff Byers*	MBH 220
12:15pm – 12:30pm	O	**Characterization of Viral and Bacterial Dynamics in Lake Champlain Cyanobacterial Harmful Algal Blooms** *Presenters: Gifty Atanga '23, Briana Johnson '23* *Sponsors: Erin Eggleston*	MBH 216

12:15pm – 12:30pm	O	**Developmental Consequences of C-Section Delivery in Prairie Voles-(Microtus ochrogaster)** *Presenters: Shriya Patel '22* *Sponsors: Marcia Collaer*	MBH 311
12:15pm – 12:30pm	O	**Emotion, Rationality, Self-Actualization: Examining Tensions in Capitalism Through Brené Brown and Ray Dalio** *Presenters: Caitlin Barr '22.5* *Sponsors: Matthew Lawrence*	MBH 303
12:15pm – 12:30pm	O	**Entaglement Entropy in Frustrated Quantum Ferromagnets** *Presenters: Tao You '22.5* *Sponsors: Chris Herdman*	MBH 219
12:15pm – 12:30pm	O	**Homosexual Intimacy Within and Beyond The Untamed** *Presenters: Charlene Fu '22* *Sponsors: Louisa Stein*	MBH 403
12:15pm – 12:30pm	O	**Underwater: Symbolism of Water & Hydrophilia in Queer Cinema** *Presenters: Jean Wan '24* *Sponsors: Louisa Stein*	MBH 104
PINNED 12:30pm – 1:30pm	G	**Lunch Break**	Various Locations
1:30pm – 1:45pm	O	**Conjuring Legitimacy: The Nabatean Agriculture in Translation** *Presenters: Sofia Leathers '22* *Sponsors: Sam Liebhaber*	MBH 303
1:30pm – 1:45pm	O	**Development and Social Changes in Rural China Under the Rigorous Poverty Alleviation Policy---Case Study of Longtang Village in Guizhou Province, China** *Presenters: Jessica (Zhanqi) Hong '24* *Sponsors: Ellen Oxfeld*	MBH 220
1:30pm – 1:45pm	O	**Evaluating the Impacts of Living near Superfund Sites in New York City** *Presenters: Christina Badalamenti '22* *Sponsors: Julia Berazneva*	MBH 219
1:30pm – 1:45pm	O	**Impregnation, Contamination, and Lethal Melancholy: A Hysteric's Revenge in Sophocles' The Women of Trachis** *Presenters: Hana Matsudaira '22* *Sponsors: Marion Wells*	MBH 311
1:30pm – 1:45pm	O	**Maybe I'm Q? If I Was, This Is Exactly How I Would Do It: A Communicative Analysis of QAnon Organizing Logic and Content Formation** *Presenters: Suria Vanrajah '22* *Sponsors: Marybeth Nevins*	MBH 216
1:30pm – 1:45pm	O	**Moving Earth: Revolution, Labor, and Landscape in 20th-Century Egyptian Painting** *Presenters: Rhys Glennon '22* *Sponsors: Sarah Rogers*	MBH 317
1:30pm – 1:45pm	O	**Statistical Methods in Olfactory Hardware Production Optimization** *Presenters: Jiayi Chen '23, Bo Liu '23, Yiran(Steven) Shi '23* *Sponsors: Alex Lyford*	MBH 403
1:30pm – 1:45pm	O	**To be Free is to be Yourself: How Authentic Selfhood leads to Humility and Selflessness** *Presenters: Maximilian Stein '25* *Sponsors: Maria Hatjigeorgiou*	MBH 104

1:30pm – 1:45pm	Z	**The Establishment of the British Museum and the British Society in the Late Eighteenth Century** *Presenters: Yining (Elaine) Zhang '23.5* *Sponsors: Grace Egan*	Zoom
1:45pm – 2:00pm	Z	**Imperialist Legacies of 18th Century British East India Company Tea Trade** *Presenters: Nina Ng '23* *Sponsors: Julia Berazneva*	Zoom
1:50pm – 2:05pm	O	**A National Identity at Odds** *Presenters: Ajani Wilson '24.5* *Sponsors: Bert Johnson*	MBH 220
1:50pm – 2:05pm	O	**Asian Americans Be(Long) in American History: Intricacies of Labor and Home Reflected in Asian American Literature** *Presenters: Queenie Li '22* *Sponsors: Jennifer Wang*	MBH 303
1:50pm – 2:05pm	O	**Climate Change and Conflict: The Impact of Environmental Concerns on Humanitarian Response in Yemen, The Democratic Republic of the Congo, and South Sudan** *Presenters: Isabel Scal '22.5* *Sponsors: Sarah Stroup*	MBH 216
1:50pm – 2:05pm	O	**Dangerous Women: (De)Construction of the Gender Binary Through Ultra-Endurance Sports** *Presenters: Hannah Gellert '22* *Sponsors: Sujata Moorti*	MBH 311
1:50pm – 2:05pm	O	**Looking Within and Beyond Books During Mughal Emperor Jahangir's Reign** *Presenters: Claire Darrow '22* *Sponsors: Cynthia Packert*	MBH 317
1:50pm – 2:05pm	O	**Modeling the Secret Weapons of Cancer: An In Vitro System to Recapitulate Extrachromosomal DNA Formation in Tumor Cells** *Presenters: Hieu Nguyen '23* *Sponsors: Grace Spatafora*	MBH 403
1:50pm – 2:05pm	O	**Painting Though Extinction: The Representation and Reclamation of Sinixt Identity in Ric Gendron's Coming Home** *Presenters: Alexis Welch '22.5* *Sponsors: Katy Smith Abbott*	MBH 104
1:50pm – 2:05pm	O	**Socialscape Ecology: Integrating Social Factors into Spatially-Explicit Marine Conservation Planning** *Presenters: Katie Concannon '22* *Sponsors: Mez Baker-Medard*	MBH 219
2:00pm – 2:15pm	Z	**Defining Love: Gender, Sex, and Generational Trauma in Mo Xiang Tong Xiu's Heaven Official's Blessing** *Presenters: Olivia Lee '22* *Sponsors: Thomas Moran*	Zoom
2:10pm – 2:25pm	O	**Beds and the Spatial Dynamics of Power in the Odyssey** *Presenters: Caitlin Barr '22.5* *Sponsors: Maria Hatjigeorgiou*	MBH 303
2:10pm – 2:25pm	O	**Diversity in Start-up Fundraising: Gender, Race & Education** *Presenters: Christian Poulsen '22* *Sponsors: Erick Gong*	MBH 219

2:10pm – 2:25pm	O	**Exploring the Feasibility of Integrating Generated Protocol Parsers into Operating Systems** *Presenters: Wayne Wang '22.5* *Sponsors: Peter Johnson*	MBH 403
2:10pm – 2:25pm	O	**From Italian Folk Traditions to TikTok Feeds: Problematizing Assumptions of Authorship in Music through the Dynamic History of "Bella Ciao"** *Presenters: Massimo Sassi* *Sponsors: Damascus Kafumbe*	MBH 104
2:10pm – 2:25pm	O	**Sacralizing Sunrise: The Religious Dimensions of the Sunrise Movement's Meta-Narrative and Ritualized Practices** *Presenters: Connor Wertz '22* *Sponsors: Rebecca Gould*	MBH 220
2:10pm – 2:25pm	O	**Strange Encounters of the Small Town Kind: On Spirit Possession, Kinship, and Memory** *Presenters: Haegan O'Rourke '22.5* *Sponsors: Kristin Bright*	MBH 216
2:10pm – 2:25pm	O	**The Body of a Nation: Ableism and Constructions of Masculinity Through Primary School Education in Modern China** *Presenters: Mira Vance '22.5* *Sponsors: Ellen Oxfeld*	MBH 311
2:10pm – 2:25pm	O	**Why lobbying?: Examining a Firm's Decision to Influence Vermont Public Policy** *Presenters: Jacqueline Qiu '22* *Sponsors: Bert Johnson*	MBH 317
2:15pm – 2:30pm	Z	**Bird Diversity in the Ecuadorian Chocó: A proposal for avitourism in Villaflora and Manduriacu Reserve** *Presenters: Elizabeth Kroger '22.5* *Sponsors: Alexis Mychajliw*	Zoom
2:30pm – 2:45pm	O	**Examining Theories of Change in the Northeast Native Plant Movement** *Presenters: Brett Gilman '24.5* *Sponsors: Dan Suarez*	MBH 219
2:30pm – 2:45pm	O	**Formula Hybrid Aerodynamics** *Presenters: Neehal Haque '25* *Sponsors: Kim Cronise*	MBH 403
2:30pm – 2:45pm	O	**Homeland, Revolution, and Belonging: The Poetry of Marwan Makhoul in Translation** *Presenters: Andrew Willis '22* *Sponsors: Usama Soltan*	MBH 104
2:30pm – 2:45pm	O	**Imagining the Future: Christian Apocalypticism and the Modern Environmental Movement** *Presenters: Olivia Sommers '22* *Sponsors: Rebecca Gould*	MBH 220
2:30pm – 2:45pm	O	**Is the Job-to-Job Transition Rate Procyclical?** *Presenters: Masataka Mori '23* *Sponsors: Raphaelle Gauvin-Coulombe*	MBH 216
2:30pm – 2:45pm	O	**Miyazawa Kenji's Reception in Interwar Japan** *Presenters: Yunzhi Liu '22* *Sponsors: Otilia Milutin*	MBH 317

2:30pm – 2:45pm	O	**Ophelia Underwater: Designing Character through Costume** *Presenters: Bella Costantino-Carrigan '22* *Sponsors: Olga Sanchez Saltveit*	MBH 311
2:30pm – 2:45pm	O	**Two Dantes and Everything in Between: Dostoevsky as a Key to Dante's Underworld** *Presenters: David Williams '22.5* *Sponsors: Patricia Zupan*	MBH 303
2:30pm – 2:45pm	Z	**Impacts of the Great Recession on Migrant Household's Workforce Participation in Rural Guatemala** *Presenters: Ernesto Cuxil '22* *Sponsors: John Maluccio*	Zoom
2:45pm – 3:30pm	P	**23. The Responses of Retail Spending and Real Consumption to Housing Wealth Shocks: Evidence from Geographically-Linked Retail Data** *Presenters: Tai Nguyen '22* *Sponsors: Andrew Fieldhouse, Phani Wunnava*	MBH Great Hall
2:45pm – 3:30pm	P	**24. A Chemical-Genetic Dissection of Necroptosis** *Presenters: Karina Sharma '22* *Sponsors: Cole Dovey*	MBH Great Hall
2:45pm – 3:30pm	P	**25. Initial Methods for an Environmental Health Survey of Toxoplasma gondii in Alaskan Shellfish** *Presenters: Kaja Aagaard '22* *Sponsors: Erin Eggleston*	MBH Great Hall
2:45pm – 3:30pm	P	**26. The Role of GDE6 in Neural Tube Development** *Presenters: Maddie McKean '22, Thea Joseph '22* *Sponsors: Clinton Cave*	MBH Great Hall
2:45pm – 3:30pm	P	**27. Assessing Beaver Activity and Mitigating Human Conflict on Middlebury College Lands** *Presenters: Jack Cornish '22* *Sponsors: Alexis Mychajliw*	MBH Great Hall
2:45pm – 3:30pm	P	**28. Toxic Thirst: Exploring PFAS Contamination In Vermont Drinking Water** *Presenters: Claire Contreras* *Sponsors: Kathryn Crawford*	MBH Great Hall
2:45pm – 3:30pm	P	**29. Direct Imaging of RNA loaded Lipid-Nanoparticles for RNA-based Vaccines** *Presenters: Jewel Ashbrook '23* *Sponsors: Michael Durst*	MBH Great Hall
2:45pm – 3:30pm	P	**30. Encounters with Stone** *Presenters: Max Taxman '22.5* *Sponsors: Ben Allred*	MBH Great Hall
2:45pm – 3:30pm	P	**31. The Investigation of Personal Care Products Usage Role in the Prevalence of Thyroid Cancer in Women in Honduras** *Presenters: Seiha San '22* *Sponsors: Kathryn Crawford*	MBH Great Hall
2:45pm – 3:30pm	P	**32. Elucidating the Individual Functions of Three Borellial PFKs** *Presenters: Cady Barns '22.5* *Sponsors: Bob Cluss*	MBH Great Hall
2:45pm – 3:30pm	P	**33. Alcohol, Substance Use, and Violence in Male and Female Adolescents** *Presenters: Gianna Ferguson '23* *Sponsors: Zu Wei Zhai*	MBH Great Hall

2:45pm – 3:30pm	P	**34. Island Extinctions Biases throughout the Holocene** *Presenters: Maggie Swanson '22.5* *Sponsors: Alexis Mychajliw*	MBH Great Hall
2:45pm – 3:30pm	P	**35. Investigating Groundwater as a Control on Algal Blooms in Lake Carmi, Franklin VT** *Presenters: Maxwell Memeger '22* *Sponsors: Peter Ryan*	MBH Great Hall
2:45pm – 3:30pm	P	**36. Determining Whether Testosterone's Effect on Spatial Memory Strategy in Male Rats is Androgen- or Estrogen-Dependent** *Presenters: Abby Griffin '23, Em Luber '22* *Sponsors: Mark Spritzer*	MBH Great Hall
2:45pm – 3:30pm	P	**37. The Effect of Heat Stimuli on Individual and Group Behavior in D. Melanogaster** *Presenters: Ciara Burke '22* *Sponsors: Amanda Crocker*	MBH Great Hall
2:45pm – 3:30pm	P	**38. Where the Woodlots Are: Superfine Tree Gain Mapping in Tanzania Using Planet Labs Imagery** *Presenters: Vincent Falardeau '22* *Sponsors: Niwaeli Kimambo*	MBH Great Hall
2:45pm – 3:30pm	P	**39. Managing and Monitoring Beavers on Middlebury's Campus** *Presenters: Andrew Ng '22* *Sponsors: Alexis Mychajliw*	MBH Great Hall
2:45pm – 3:30pm	P	**40. Role of the Neuropeptide NPLPL4 in Alcohol Tolerance and Sensitivity in the Fruit Fly** *Presenters: Francesca Whitecross '23.5* *Sponsors: Amanda Crocker*	MBH Great Hall
2:45pm – 3:30pm	P	**41. Non-Medical Factors Influencing Lung Cancer Treatment and Survival Outcomes** *Presenters: Betsy Romans '23, Sophie Levine '23, Jack Finn '23, Asif Ul-Islam '23* *Sponsors: Sam Byrne*	MBH Great Hall
2:45pm – 3:30pm	P	**42. Testing Taphonomy for Tar Pits of the World** *Presenters: Ezra Flint '22.5* *Sponsors: Alexis Mychajliw*	MBH Great Hall
2:45pm – 3:30pm	P	**43. The Rohatyn Global Scholars Program** *Presenters: Christopher Martucci '25, Maddie Sauders '25, Ciara Murphy '25* *Sponsors: Nadia Horning*	MBH Great Hall
3:30pm – 3:45pm	O	**A Comparison of eDNA Metabarcoding to Camera Trapping for Mammal Diversity in Bristol, VT** *Presenters: Emma Norton '22* *Sponsors: Alexis Mychajliw*	MBH 219
3:30pm – 3:45pm	O	**A Pandemic of Resilience: Creating an Active Reading Strategy to Pursue Resilience in Written and Film Narratives of the Wuhan COVID-19 Lockdown** *Presenters: Joshua Sims Speyer '22* *Sponsors: Thomas Moran*	MBH 311
3:30pm – 3:45pm	O	**A Window into Small Scale Fishing Dynamics: Community Perceptions and Indicator Family Relative Abundance and Biomass** *Presenters: Gabriel Lefkowitz '22* *Sponsors: Mez Baker-Medard*	MBH 303
3:30pm – 3:45pm	O	**Exploring the Middlebury Language Community** *Presenters: Nicholas Sliter '23* *Sponsors: Alex Lyford*	MBH 317

3:30pm – 3:45pm	O	**Finding Foraminifera: Quantitative Analysis of Microfossils to Reconstruct Deep Ocean Carbon Storage** *Presenters: Shane Lusk '22* *Sponsors: Allison Jacobel*	MBH 403
3:30pm – 3:45pm	O	**Pathology as Fiction: The Myth of the Creative Mad Genius in Émile Zola's L'Œuvre** *Presenters: Jacqueline Qiu '22* *Sponsors: Julien Weber*	MBH 216
3:30pm – 3:45pm	O	**The Effects of AI on College Majors** *Presenters: Maxwell Auborn '22* *Sponsors: Erick Gong*	MBH 220
3:30pm – 3:45pm	O	**'The Snitch': Analyzing the Role of Horizontal Surveillance at Middlebury College During the COVID-19 Pandemic** *Presenters: Molly Gallagher '22* *Sponsors: Rebecca Tiger*	MBH 104
3:50pm – 4:05pm	O	**Amateur Directing in the Real World** *Presenters: Ryan Kirby '22* *Sponsors: Alex Draper*	MBH 311
3:50pm – 4:05pm	O	**Geographies of Migration and Liminality: Placemaking on the Margins of the Calais Jungle** *Presenters: Lily Laesch '23* *Sponsors: Guntram Herb*	MBH 303
3:50pm – 4:05pm	O	**Governing Digital Disruption: Effects of Competing Global Governance Interests on Cross-Border Mobile Money Adoption** *Presenters: Elsa Korpi '22* *Sponsors: Sarah Stroup*	MBH 403
3:50pm – 4:05pm	O	**Instagram Innovation Among Disabled "Mommy Bloggers"** *Presenters: Mary Moore '22.5* *Sponsors: Susan Burch*	MBH 216
3:50pm – 4:05pm	O	**Modeling Runoff in the New Haven River Watershed: A GIS-Based Approach** *Presenters: Will Ebby '22* *Sponsors: Eric Moody*	MBH 219
3:50pm – 4:05pm	O	**Outdoor Education and Environmental Justice** *Presenters: Emma Ramirez-Richer '22* *Sponsors: Tracy Weston*	MBH 317
3:50pm – 4:05pm	O	**Social Media Use Among Adolescents in the COVID-19 Pandemic** *Presenters: Cassie Kearney '22* *Sponsors: Virginia Thomas*	MBH 104
3:50pm – 4:05pm	O	**"Grades Make Me Depressed": Re-evaluating Meaning Making in Our Grading Systems** *Presenters: Emily Jones '23* *Sponsors: Genie Giaimo*	MBH 220
4:10pm – 4:25pm	O	**Free Lunches? Education & Health Impacts of India's 'Mid-Day Meal' School Feeding Program** *Presenters: Shridhar Singhania '22* *Sponsors: Erick Gong*	MBH 317

4:10pm – 4:25pm	O	**Guston's Golems: Redemption and Revelation in the Late Works of Philip Guston (1969 - 1980)** *Presenters: Hunter Parkhill '22* *Sponsors: Katy Smith Abbott*	MBH 311
4:10pm – 4:25pm	O	**Local Farm Production Output Study for Food Hub Feasibility** *Presenters: Aiden Snorek-Yates '22.5, Hannah Sullivan '22.5* *Sponsors: Alex Lyford*	MBH 219
4:10pm – 4:25pm	O	**Observing the Hall Effect in Semiconductors** *Presenters: Ruben Vargas '22* *Sponsors: Susan Watson*	MBH 403
4:10pm – 4:25pm	O	**Programming Music: The Art of Live Coding** *Presenters: Lukka Wolff '25* *Sponsors: Peter Hamlin*	MBH 216
4:10pm – 4:25pm	O	**The Muslim Rebellion of 1864: A Regretted Jihad in Qing Xinjiang** *Presenters: Indira Yuldasheva '22* *Sponsors: Maggie Clinton*	MBH 303
4:10pm – 4:25pm	O	**The Rising Price of Higher Education: A Summary, Analysis, and Hopeful Solution** *Presenters: Alex Demoly '22* *Sponsors: Gary Winslett*	MBH 220
4:10pm – 4:25pm	O	**Well-being and Mental Health During the Pandemic** *Presenters: Tim Hua '23.5* *Sponsors: Julia Berazneva*	MBH 104
4:30pm – 4:45pm	O	**0 Gorham Lane Research and Analysis** *Presenters: Sarah Mines '24.5, Sarah Rifkin '24, Tyler Hadar '25, Christopher Fridlington '24, Beckett Pintair '24.5* *Sponsors: John McLeod*	MBH 104
4:30pm – 4:45pm	O	**Analyzing College Admissions Equity through High School Seniors, the Applications Process, and Online Communities** *Presenters: Erica Swirsky '23* *Sponsors: Kristin Bright*	MBH 317
4:30pm – 4:45pm	O	**Computational Models of The Effects of Infraslow Oscillations on Neuron Ensemble Formation** *Presenters: Ev Berger-Wolf '23* *Sponsors: Michael Dash*	MBH 403
4:30pm – 4:45pm	O	**Dissolved phosphorus: Unique Indicator or Waste of Resources?** *Presenters: Castin Stone '22* *Sponsors: Will Amidon*	MBH 219
4:30pm – 4:45pm	O	**Escaping Meritocracy? Why Korean and Chinese International Students Opt Out of Their Home Countries' Education Systems** *Presenters: Raphaella Kim '22* *Sponsors: Ellen Oxfeld*	MBH 220
4:30pm – 4:45pm	O	**The Effect of Republican Leaders' Testimonials on COVID-19 Vaccine Uptake in the United States** *Presenters: Xiaoyu Wu '22* *Sponsors: Erick Gong*	MBH 311

4:30pm – 4:45pm	O	**Vulnerability: A Senior Thesis in Dance** *Presenters: Chloe Zinn '22* *Sponsors: Meshi Chavez*	MBH 216
4:30pm – 4:45pm	O	**“We Will Not Let Our Future Burn”: Interviews with Gen-Z Activists in the Myanmar Spring Revolution** *Presenters: Molly Burnett '22.5* *Sponsors: Sarah Stroup*	MBH 303